NEW YORK STATE MECHANIC.

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THE ALOE.

Having presented in No. 37 of the Mechanic an article accompanied by an engraving of the plant often called the American aloe, which is now attracting so much attention on account of two specimens of it being in a state of florescence in this climate, we give this week a picture of the true aloe, (*aloe soccotrina,*) by which the reader will perceive the distinction between it and the agave, before represented.

This is an extensive tribe of succulent plants, comprehending a very considerable number of species, which differ from each other exceedingly in size, form, and surface of the leaves, in stature, and in the color, size and structure of their flowers. The greater part of them are mere objects of curiosity, and are only seen in collections of succulent plants; but among them are species of much value on account of their yielding the well-known medicinal drug of that name. These plants, which are chiefly inhabitants of hot climates, have flowers of a single petal, the mouth expanded, the base nectariferous, and the filaments of the stamens inserted into the receptacle.

Some of the larger kinds, among which it is customary to reckon the agave americana, are of great importance to the inhabitants of the countries where they grow. Beset as the leaves are with strong spines, they form an impenetrable fence. The negroes of the western coast of Africa make ropes and weave nets of the fibrous parts of these leaves. The Hottentots hollow out the stems of one of the kinds into quivers for their arrows. The juice of aloes was formerly used in eastern countries in embalming to preserve dead bodies from putrefaction; and as the resinous part of this juice is not soluble in water, it is sometimes adopted in hot climates as a preservative of ships' bottoms from the attacks of marine worms. One ounce of it mixed with turpentine, tallow and white lead, is considered sufficient for covering about two superficial feet of plank; and 12 pounds for a vessel of 50 tons burden.

There is a tract of mountains about fifty miles north of the Cape of Good Hope, which is wholly covered with aloes. The reader may imagine, from the beautiful symmetry of the plant, the splendor of such a forest. Among the Mohammedans, and particularly in Egypt, the aloe is a kind of symbolical plant; it is dedicated to the offices of religion, and pilrims, on their return from Mecca, suspend it over their doors, to show that they have performed that holy journey.

In the arts aloes are in several respects useful. Particularly a beautiful violet color is afforded by the leaves of the Soccotrina aloe, of which the engraving is a representation, which does not require the aid of any mordant to fix it; the same is also capable of being formed into a fine transparent color, for painting in miniature. The Soccotrine aloes seem to be the purest kind, obtained by draining only. The plant is a native of the Cape of Good Hope and the island of Soccotara, but is now also cultivated in the West Indies. The hepatic or Barbadoes aloes are less pure, and may be obtained by boiling or slight pressure; while horse aloes are undoubtedly a coarse preparation of the dregs of the last mentioned.

These plants, it is said, are easy to cultivate artificially. They require a green-house which is capable of being maintained at a temperature of not less than 40° in the depth of winter, at which time they should have no water whatever; in summer they require no fire heat, but may be watered regularly, the supply being always in proportion to the rate of their growth and to the temperature of the air. They should be potted in a compost, consisting of little more than lime rubbish mixed with a quantity of ordinary soil, and carefully drained.

CAST IRON FOUNTAIN.

In the Cultivator for August we find an engraving of the Fountain for which a gold medal was awarded to Mr. D. L. Farnham, of New York, at the last fair of the American Institute, and copy the description of it from the report of the committee on Garden Ornaments, of which ALEX WALSH, Esq. of Lansingburgh, was chairman:—"This superb article might truly be said to form the climax of garden ornaments. It was got up by Mr. D. L. Farnham, of New York, in a style which would do honor to any country, and displaying a taste and skill which richly entitles them to patronage. It consists of an extensive and lovely basin of clear water, in which gold fish were sporting over a bottom embedded with shells and aquatic plants, and surrounded by four Tritons sitting on the edge, each throwing up a jet of water like a burnished silver wire, to the height of six or eight feet, and meeting another jet from the center, the whole falling into a little basin, which forms the cap of a highly ornamented column of three or four feet high, from which it trickled over the edge, falling down on three females figures of great beauty, which surrounded the sides of the column, and thence returned into the fountain. A few tasteful gardens scattered about the country, each exhibiting such a fountain, would do much towards awakening a better taste in rural matters. Where there is a small stream of water near a garden, especially if any part of the stream is above the garden level, the cost of such a fountain will be but trifling, and even where the water must be supplied by artificial power, there are abundant ways and means to facilitate the procuring a cheap supply."

THE ANNESLEY SYSTEM OF NAVAL ARCHITECTURE.

No. II.

After his return home Mr. A. continued, as occasions offered, to build or give directions for building on his system. This he had improved very materially, by rejecting from his plan the use of a stern and sternport with transom, in setting up his vessels. He set up only a keelson with the moulds or arches attached to it, and built his hull upon them, thus making the vessels radically an elliptical canoe, completely fastened and caulked inside and out. To this body the keel stem, sternport, and all the dead wood was then secured in such a manner that the vessel might lose all those external attachments and yet remain a tight body, securing the cargo and crew from that fate which usually accompanies the splitting of the stem or the starting of a stern frame, an occurrence by no means rare at sea. Vessels were built on the St. Lawrence and Hudson rivers, lakes George, Ontario and Canandaigua, all which gave full evidence of superior strength.

About this time, the year 1828, the writer of this article, having occasion to build a steamer, and subsequently from time to time several other vessels, employed Mr. A. to build them, with increasing confidence in the system, as the experience of each successive vessel fully realized its theoretical advantages.

The description and history of these vessels will now be given, to speak for themselves.

The steamer Telemachus, for Cayuga lake. This vessel was 90 feet long on deck, 16½ wide, 28 feet over the guards, 8 feet deep. It was built of three courses, in all *scarcely three inches thick*, of white oak, fastened with wrought nails, and caulked in the inner and outer courses with oakum. The hull was weakened by the cutting out of 11 windows on a side,

elipses of 24 by 18 inches, and a stern window, semi-elipse, 60 by 20 inches. The only timbers in the vessel were 4 engine sills of 12 inches square, 40 feet long; 2 wheel beams, 12 inches square; and the engine frame, with suitable knees to connect it firmly together. The deck was made of three courses of pine, two athwart and one fore and aft, in all 3 inches thick, without beams or carlines to support it. The engine was a 24 horse cross head one, with 4 boilers on deck.

It will be observed by those conversant with vessels that the entire thickness of the hull of the Telemachus was scarcely equal to the plank and cieling of vessels of its class, dispensing entirely with the timber frame. An adventure of this boat, which happened during its fourth year of service, gave extraordinary evidence of its strength and elasticity.

One summer's day, when in the widest part of the lake, opposite the village of Aurora, the boat was overtaken by a violent thunder storm, which terminated in a terrible N. W. gale of wind. Unable to head it, she was brought to by an anchor and chain of the size usually employed by coasting schooners of 130 tons, and as the boat swung head to wind she lay a little to leeward of a pier of wood and stone, just built for the head of a long jetty, a large hawser was secured to the pier, and in addition to this the engine was kept at work with its full power. Notwithstanding these precautions, the chain parted, the pier was pulled to pieces, the boat broached to and went ashore. The next morning the gale ceased, and when the agitation of the water subsided the vessel was nearly high and dry.

By means of a bulwark made of the stranded pieces of the pier, and the aid of screws, the boat was got off and an examination instituted into its condition. To the astonishment of all there was not the least appearance of strain about the hull, nor the least derangement of the engine. Even the shafts remained perfectly in line. It was only necessary to get up steam and proceed on the voyage.

The violence of the gale was so great that a gentleman of high standing, a resident of Aurora, who was a witness of the scene, told me that when night hid the stranded vessel from his sight he expected with the morning light to see the fragments of her wreck lining the shore.

This boat was emp'oyed as a tow boat for several years, towing from the stern frequently four and more loaded boats, each of them of nearly its own weight, often through heavy pitching seas, so that it was exposed to great strains and risk of hogging, yet at the end of its career there was no visible alteration in its figure.

In 1829 was built my second steam vessel for the same lake, called the De Witt Clinton. This vessel was 100 feet long on deck, 18 1-2 wide, 33 feet across the guards, and 9 feet deep. It was of 4 courses of white oak—1st, The fore and aft 1 inch. 2 and 3, Transverse each, $\frac{7}{8}$ of an inch. 4th, Fore and aft, $1\frac{1}{4}$ inches, making in all $3\frac{3}{4}$ inches thick. The deck was made like that of the Telemachus, and there were no beams or timbers but the kelson, engine sills and framing, and two 9 inch beams extending across the hull and guards, to support the boilers which were on the wings. A very important improvement was here introduced, which I consider as of the highest value to the system, the substitution of wooden wedges for oakum in the caulking. The outer course of the boat and upper course of the deck were caulked with dry white pine wedges, dipped in stiff white lead paint. This caulking continues to this time (1842) in excellent condition, having never required any repairs whatever. The inner course of this boat was caulked with oakum, in the usual way.

An important test was applied to the vessel to ascertain its power of resistance to that kind of strain, wring or twist, which occurs whenever a vessel runs through a quartering sea, or grounds obliquely on a bar—a strain which many think the most trying to which a ship is subjected. The vessel being on the stocks, its centre or midship was strongly secured and shored so as to be immovable, and all the supports and shores from midship along the starboard side and quarter and larboard side and bow were well driven up and secured, whilst, per contra, the supports on the larboard side and quarter and starboard side and bow were slackened so as to give the hull every chance to twist.

Previous to doing this, by means of proper standards, two small lines each 14 feet long had been extended across at right angles to the keel, each 40 feet distant from the midship centre, and each being perfectly in line with the other, or out of wind, as it is technically called, when viewed from fore and aft. It is obvious that any twist of the vessel would make these lines cross each other, and so afford a nice test of the degree of torsion. When the appropriate supports were slackened the torsion measured at the extreme end of those cross lines did not exceed $\frac{3}{4}$ of an inch, which was easily rectified by replacing the shores. This vessel had 8 oval windows on a side, of 24 by 18 inches. In 1838, wishing to add a false bow to the boat, and examine the condition of its bottom, I had a temporary set of ways laid down and hauled it out of water. Owing to the imperfect construction of the ways, the under water division of them settled at an angle with the upper division, whilst the vessel was upon them, and it became necessary to force the vessel over this angle—nor was this all, an intervening cross timber which could not be got away had to be encountered, by reason of the settling of the main timbers, and the hull forced over it. As this was done, successive portions of the boat's bottom was depressed from one to two inches, but immediately restored themselves uninjured, thus exhibiting a fine specimen of the elasticity as well as strength of the system. This vessel is now in service as a tow boat. The cost of necessary repairs to the hull for wear has not been ten dollars a year, average.

In 1838 Mr. Annesley commenced a third steamer for me, for the same lake—the Simeon De Witt, of 152 feet long, 19 feet beam, 42 feet across the guards, 10 feet depth of hold, measuring 275 tons. This boat is of five courses of white oak stuff. The first course fore and aft of 1 inch thick, 2d and 3d of $\frac{7}{8}$ of an inch each, 4th fore and aft of $1\frac{1}{4}$ inches, and the 5th fore and aft from the wale down of $1\frac{1}{4}$ inches. Entire thickness above the wale, $4\frac{1}{4}$ inches—below it, $5\frac{1}{4}$ inches. There was a variation from the usual course of construction in this boat worth noting. The radical figure, a complete elliptical vessel, was made of the first four courses, the outer and inner of which were wedged. In order to give a sufficiently sharp figure for a fast sailer, the fifth course was carried from the wale downwards and formed at each end into a hollow bow and stern, so that the external appearance of the vessel differed nothing from any other sharp steamer. This last course was also thoroughly wedged. The deck was formed of two courses of pine, together $3\frac{1}{4}$ inches thick, unsupported by beams or carlines, except those connected with the engine and boilers. The only timbers in this vessel are—a kelson 60 feet long, 12 by 9 square; 2 engine sills, 60 feet long and 12 inches square; 2 wheel beams, 14 by 12; 5 beams 9 inches square, parallel with the wheel beams and acting as supports to boilers on the guards, and as braces to engine, and the ordinary framing for a horizontal low pressure engine of 150 horse power; under the 5 small beams last named there are bent arches, each of four 1 inch oak boards, extending from the beams to the engine sills, these are the only approaches to timbers in the vessel. When the workmen were engaged in preparations for the launch, the opportunity was seized of making a very decisive experiment of the capability of this vessel to resist a fore and aft strain. The men being about to place the cradle between the hull and the ways, the blocks and shores for 70 feet from the stern, including the stern block itself, were struck out from under the vessel, *leaving* 70-152 *of the vessel projecting into the air without any support*. What would have been the consequence of such treatment to the best ship in our navy, or the strongest merchantman or packet ship, built on the best modern plan, and having, as it would have, the advantage of treble material proportionally in its structure and comparative shortness in proportion to depth in its form? In the experiment related the boat sustained the test perfectly. It was impossible to detect any change in the lines or figure of the vessel.

In the year 1831 Mr. Annesley built for me, at Albany, two canal boats, each 66 feet long, 6 feet 6 inches wide, and 3 feet deep, without decks, each of 3 courses of oak, together $1\frac{1}{2}$ inches thick. In 1832 he built a sail boat 30 feet long, 5 feet wide, and $2\frac{1}{2}$ feet deep, of 3 courses, together 1 inch thick; this boat was not caulked, but was kept tight by a layer of oiled paper interposed between two of the courses. These boats were all exposed to very rough usage, and fully proved themselves much stronger than ordinary vessels of the same class.

(*To be Continued.*)

A PROTECTIVE TARIFF NECESSARY TO NATIONAL INDEPENDENCE.

No. II.

It appears, then, that the interests of commerce are somewhat conflictive with those of the other two great interests of the country, viewed simply with reference to each other; but when looked at with a reference to the whole country, and its interests, it will appear in a different light. If commerce be considered as an American interest, it must be seen in a healthy state to judge of its usefulness, and its relative and true measure of protection required be judged of by the requirements of the other two great interests, involving as it does their ability for its support, and its claims upon them for its protection and prosperous continuance. It must not be considered as it now really is, a foreign interest, done upon foreign account, to arrive at such a conclusion. Let us, therefore, examine the manufacturing interests, and see what measure of protection they require, and then we may judge what concessions, if any, are required by either interest.

The grand distinguishing feature of our government, that which makes it more democratic than any other, and insures a success to honest and persevering industry unknown to all others, is the freedom of our soil from entailment, and privilege of choice in business pursuits, which enables the laborer to command better terms with the employer than in any other known country, hence a nearer approximation to political and social equality than in any other. Universal suffrage does politically what this does socially, so that a mutual dependence is made between the two. Here the workingmen have been enabled to command a competence for their labor, which, in a short time, has placed them beyond the tyranny of employers and given them a social equality they never could have had at less competency for their labor, they have come nearer the pay of those engaged in what in other countries is called higher pursuits, and hence the condition of the mass is better here than there, and that system which can continue the nearest approximation to equality of prices for services rendered, is that which the people should sustain and cherish as the friend of freedom.

Throughout Europe wages are less than with us at all the common and useful employments of life, while the professions and the governments are better paid than they are here, so that it will be seen that a greater number must work more time to support the aristocracy of those countries than we do, hence the preference for our system over theirs. Now the question arises, does the manufacturer want protection to secure him in his prices, and what is the measure of protection he requires.

It is undoubtedly the interest of the commercial men to buy and sell as many goods as they can make a profit upon. Now, then, if the European manufacturer can procure his labor for one fourth of the price which the American pays for his, it is clear he can undersell by three fourths the amount so far as labor is concerned, and that is pretty much the relation they hold to each other. On all light articles, and it is upon such that the largest proportion of labor is bestowed, the cost of transportation hither is comparatively nothing, of course there can be large profits made by the buying of the foreign articles. But then comes the agriculturist with the inquiry, "how are these articles to be paid for, as I am the consumer what shall I pay you in for these things?" Is the answer, "in the produce of your farms?" if so, "what will you take, my horse, fire wood, potatoes, corn, pork, pot ashes, lumber, beans, oats, beef, hay, buckwheat, peas, rye, turnips, wool, butter, poultry, cheese, flour,"—"yes, yes," says the trader, "I'll take a little of your flour." "But," says the agriculturist, "we don't all raise wheat, it will not grow in the Eastern states, nor in many of the other states." "I cannot help it," says the trader, "Europe will not buy the other articles you have named, and unless she will take them of me I do not want them of you; cannot you sell some of them to the Indies, or South America, or somebody else, then you can pay me the money? I have no doubt the traders to those places would be glad to bargain with you for them." "But," says the farmer, "then I should have to give him another profit in the trade, beside, he will take but a few of the articles I have named. Had I not better get the articles that I want made, here, by our own mechanics, they will take such things as I have to sell, for every family wants some of each." "Aye, but then he cannot make them so cheap as I can sell them to you," replies the trader. Now, then, the mechanic is applied to, and he answers—"yes, I will take your produce, but I cannot do your work as cheap as you can buy it at the trader's there." "But," says the farmer, "you surely ought not to charge me more than he does, and, as I have got a little money, or can borrow some for a time, I think I'll buy of the trader, as he sells cheapest, and keep the produce." So, of course, the trader gets the money and sends it to Europe for more cheap goods, and of course it leaves this result—the *mechanic* has no work, unless he does it at a rate which would destroy his prospects of ever being any better off than a slave, unless through sickness he may get into the alms house. The *farmer* parts with his money and some wheat, which is sent to support, in part, the mechanics of Europe, and in part the governments and aristocracy of Europe, the rest the *trader* pockets for his profits, and there is no sale for the rest of the articles the farmer raises, of course what he does not want to consume in his own family is worthless, or comparatively so, the *mechanic* having nothing to do at his own business must either turn trader or farmer, in either case he must live from the farm, and the money being sent to Europe is not to be had to pay taxes necessary to support the government, but at enormous rates of interest or at a great sacrifice of property to some capitalist whose wealth is quadrupled by the distress of those whom he is doing a favor to buy from, at a quarter of its former value. The mechanic goes to a business he is not well fitted for, and for which he has neither taste nor tools, and all are less able to buy again of the trader; and provisions, with all property, having fallen in price, the trader is injured finally, in his business becoming less, and his property less valuable, although making larger profits upon what he does sell. The salaried man is better paid, because he can buy twice or thrice as much for his pay. The country becomes less independent in its character, and, in fact, protection to commerce must be increased, because it becomes more extensive and more important, prices of goods will be more various and fluctuating, the refinements of taste and the arts will not be as much cultivated, civilization goes back rather than advances, and an aristocracy is at once built up in the land, which must destroy the distinctive excellencies of our social and political condition.

Does, then, the mechanic or manufacturer want protection? The answer appears plain—he does; and by properly protecting him all other interests are protected. To get at the amount of protection requisite for securing the mechanic or manufacturer in the healthful pursuit of his calling, there is no need of prohibiting importations. A tariff of duties so laid upon such articles as are made here, which will increase the cost of the foreign ones to the importer to the cost of making them here, leaves a fair competition between the foreign and domestic articles, and excites domestic enterprise to excel in quality and quantity, so that the other interests are protected in healthy action by the same stimulus that urges the mechanic to compete with his foreign rival, self interest, and there is no sacrifice by either interest to the other. The first condition of a healthy trade is the ability to *pay* for what we buy. T.

INVENTIONS, DISCOVERIES, ETC.

A BEAUTIFUL INVENTION.

There has lately been brought into use at Paris, a new and beautiful style of ornamenting marbles. It consists in etching, by acids, deeply in the marble, various designs upon a properly prepared bituminous ground. When the corrosion has gone sufficiently deep, the cavities are filled up with hard colored wax, prepared so as to take a polish equal to the marble when cleaned off. Drawings thus made on black marble, and filled in with scarlet wax, after the manner of Etruscan and certain Egyptian designs, are said to have a very noble effect, and are applied to tables, panelling, stoves &c. The invention is worthy of the attention of persons at home.

STEAM CANAL NAVIGATION.

The new canal steam-packet Gallant returned to Georgetown on Saturday from a trip to the Great Falls of the Potomac. This trip, it is said, has dissipated every doubt upon the subject of the application of steam power to the navigation of the Chesapeake and Ohio Canal.—*Nat. Intel.*

FLOATING GLASS FACTORY.

Among the strange craft that navigate the Ohio, is a floating glass manufactory. A large flat boat is filled up with a furnace, tempering oven, and the usual apparatus proper for such an establishment. It is in full blaze every night, melting glass ware, which is retailed all along shore, as the establishment floats down stream. It hails from Pittsburg, and is owned by Ross & Co.

IRON STEAMER.

The great iron steamship GREAT BRITAIN, intended to trade between Bristol and New York, is thus described in the late English papers. Her extreme length is 325 feet, her width across the beam 51 feet, depth 30 feet, burden 3,600 tons register, 1,000 horse power, 6 masts, with excellent sleeping accommodations for 360 passengers; 380 persons can dine in the principal saloon. She will carry 1,000 tons of coal and have a crew of 130 men.

The Great Britain is fitted with Smith's Archimedean screw, upon which some further improvements have been made by the Company.

CEMENT FOR COPINGS.

In the sugar making Islands of the West Indies, they make a most valuable cement, which is quite impervious to water, by mixing with lime, *ashes* of the *cane stems*, after the sugar has been all expressed. As the virtue of these ashes consists principally in the *silex*, which is found in the cane stems. Why might not our farmers who are often in want of such a cement use the ashes of the Indian corn stalks, where also, an abundance of that earth is known to exist.

ICHTHYOSAURUS.

One of the most extraordinary animals of a former world has lately been restored by that indefatigable geologist, Mr. J. Buckman, and may now be seen at the Medical Hall. It is the fossilized remains of the Ichthyosaurus, or fish lizard, in a very wonderful state of preservation. The skeleton measures nearly eight feet in length; the rostrum, or mouth, is fifteen inches, and it is completely filled with perfect teeth. The orbit of the eye, which is very beautifully preserved, is five inches in diameter. It has one hundred vertebræ, and the ribs are partially covered with what the discoverer is of opinion is the actual skin. The blocks of stone upon which the bones were found, are laid together in the case, exactly in the same relative position which they occupied in the quarry, and joined togther with cement. We are told that the weight of the specimen and case is nearly half a ton. Altogether it is a grand and imposing object, and well worthy an attentive examination by the curious in fossil geology.

A BRITTLE GARMENT.

At the Polytechnic Institution, Regent street, London, there is exhibited one pound of glass, spun by steam into a thread 4000 miles long, and woven with silk into beautiful dresses and tapestry.

IMPROVEMENT IN SPLITTING-SAWS.

A correspondent of the American Mechanic states that a very great improvement may be made in the common hand splitting-saws, by commencing the teeth at the front of the saw rather small, and increasing the size of the teeth gradually as they approach the handle, at which end they may be nearly twice the size of common sized teeth. If saw manufacturers would consider and adopt this method, they would, no doubt, confer a great favor on carpenters, if on no other class of mechanics. That such saws must be better than the common kind, I think can be plainly seen. In the first place the common saw will cut twice as much on the half next the handle, and has no inclination to suck, catch, or twist, as it has near the point, and the same impetus given with teeth increasing in size, must do greater execution.

WONDERFUL FILTRATION.

An invention has been recently brought forward, which is calculated to have a vast beneficial effect in filtering and so purifying all the water for domestic and other purposes in the kingdom. Lord Brougham, with many other eminent *savans*, has been surprised and delighted by the effects produced. A machine only five feet square has been made to filter the enormous quantity of two millions five hundred thousand gallons every twenty four hours, and that, too, so thoroughly and effectually that water charged with mud, animalculæ, and decomposed vegetable matter, has been produced as bright and pure, and sweet, as it originally issued from the spring. The merit of this most useful and valuable invention belongs to a Russian merchant of the name of Stuckey, and the water filtered by it has been examined and certified by Prof. Phillips, the eminent chemist.

THE FINE ARTS.

Drawing and painting, where a good taste is manifested, are truly elegant accomplishments for a lady. They teach more of humanity, and open to her more beauty in nature, as well as harmony in life, than can any other single acquirement. The productions of her pencil have a double value; they teach her to admire and imitate that which his good, and by being presented to others tell them to go and do likewise. When properly instructed, a female artist need never lack amusements, but may become a joy to herself and her kindred for ever. Her song may become silent through care, and matronly duties will take the lightness from her step, but the charmed work of her hand shall continue in its beauty through all time. They exist when her creating fingers have lost their action; when her imaginings can portray no more. They become relics of surpassing value, and are cherished as love tokens of her who cannot altogether depart so long as these memorials of her skill delight the eye.—*Chambers' Journal.*

SOLILOQUY ON RAIL ROADS.

Rail roads were not dreamed of by Hamlet in his philosophy: nor had Shakspear any conception of those prodigies of mechanical invention, that annihilate time and space, and not a few of the *species humain*. If he had, he might have put into the mouth of some one of his heroes something like the following:

Rail roads or no rail roads, that is the question:
Whether 'tis better that the pocket suffer
The cheats and charges of outrageous coachman,
Or to subscribe for locomotive engines,
And, by opposing, end them? To go—to fly—
By steam, and thus to supersede
Canal boats and the thousand impositions
That boatmen play us;—'tis a consummation
Devoutly to be wished. To go—to fly—
To fly—perchance to burst—aye, there's the rub!
For if the boiler burst, what hurts may come
When we have been blown up into the air,
Must give us pause. There's the respect
That makes the turnpike shares regain their price.
Yet who would bear the frauds of navigation,
Diluted spirits and much damaged goods,
The bore of turnpike gates, the mail's delay,
The insolence of coachee, and the fees
That the sharp agent of the unwary takes,
When we ourselves might their quietus make;
By steam and rail ways? Who'd mount stage coaches
To creep and sweat o'er villanous ways?
But that the dread of spoiling its appearance,
The foliage covered country, whose green sward
The traveller admires—puzzles us all
And makes us rather bear those ills we have,
Than fly to others we know not of.

PISTON.

ANTIENT MECHANIC WONDERS.

BY J. H. BUTLER.

In the fourth No. of your Mechanic I noticed some of those surprising mechanical inventions of the antients, the automata. The following curious items may be found equally interesting, from the skill and ingenuity required in their construction.

Pliny and Ælian say that Myrniecles wrought out of ivory a chariot with four wheels and four horses, and a ship with all her tackling, both in so small a compass that a bee could hide either with his wings!

In the twentieth year of queen Elizabeth's reign, a blacksmith of London, by the name of Mark Scaliot, made a lock of iron, steel and brass, of eleven pieces, and a pipe key, all of which weighed only one grain! The same mechanic also made a chain of gold, consisting of forty-three links, which he fastened to the lock and key, and put it round the neck of a flea, which drew the whole with perfect ease. The whole establishment weighed but 1¼ grains.

Hadrianus Junius saw at Mechlin in Brabant, a cherry stone cut into the form of a basket, in which were placed fourteen pair of dice, distinct, and the spots and numbers easily discernable with a good eye.

But still more minute than these was a set of turnery ware show at Rome in the time of pope Paul V., by one shad of Mitelbrach, who had bought them of the artist, Norwaldus Norrhingerus. It consisted of 1600 dishes, all perfect and complete, yet so small that the whole could be enclosed in a case fabricated out of a pepper corn. It is said that the pope counted them but with the aid of spectacles.

Turianus fabricated iron mills which moved of themselves, so minute in size that a monk could carry one in his sleeve, yet sufficiently powerful to grind grain for eight men.

LETTERS IN THE ALPHABET.

The Sandwich Island alphabet has 12 letters; the Burmese 19; the Italian 20; the Bengalese 21; the Hebrew, Syriac, Chaldee, Samaritan and Latin 22 each; the French, 23; the Greek 24; the German and Dutch 26 each; the Spanish and Salvonic 27 each; the Arabic 28; the Persic and Coptic 32; the Turkish 33; the Georgian 36; the Armenian 38; the Russian 41, the Muscovite 43; the Sanscrit and Japanense 50; the Ethiopic and Tartarian 202.—*Savannah Georgian.*

RUSSIA LEATHER.

The Russians have long been possessed of a method of making a peculiar leather, called by them *jucten*, dyed red with the aromatic saunders wood. This article has been much sought after, on account of not being subject to mould in damp situations, being proof against insects, and even repelling them from the vicinity of its odor. The skins are freed from the hair or fleece, by steeping in an ash-ley too weak to act upon the animal fibers. They are then rinsed, fulled for a longer or shorter time according to their nature, and fermented in a proper steep, after having been washed in hot water. They are taken out at the end of a week, but they may be steeped a second time if deemed necessary, to open their pores. They are now cleaned by working them at the horse on both the flesh and grain sides.

A paste is next composed, for 200 skins, of 38 pounds of rye flower, which is set to ferment with leaves. This dough is worked up with a sufficient quantity of water to form a bath for the skins, in which they are soaked for 48 hours; they are then transferred into small tubs, where they remain during fifteen days, after which they are washed at the river. These operations serve to prepare the skins for absorbing the astringent juices with uniformity. A decoction of willow bark (*salix cinerea* and *salix caprea*) being made, the skins are immersed in the boiler whenever the temperature of the liquor is sufficiently lowered not to injure the animal fibres, and handled and pressed for half an hour. This manipulation is repeated twice daily during the period of a week. The tanning infusion is then renewed, and applied to the same skins for another week; after which, being exposed to the air to dry, they are ready for being dyed, and then curried with the empyreumatic oil of the bark of the birch tree. To this substance the Russia leather owes its peculiarities. Many modes have been prescribed for preparing it; but the following is the one practised in Russia.

The whitish membranous epidermis of the birch, stripped of all woody parts, is introduced into an iron boiler, when stuffed full, is covered tight with a vaulted iron lid, having a pipe raised from its center. A second boiler into which this pipe pasess without reaching it botton, is set over the first, and is luted to it at the edges, after the two are bolted together. They are then inverted, so that the upper one contains the birch bark. The under half of this apparatus is sunk in the earth, the surface of the upper boiler is coated over with a clay lute, then surrounded with a fire of wood, and exposed to a red heat, till the distillation be completed. This opeation, through rude in appearanee, and wasteful of wood, answers its purpose perfectly well. The iron cylinder apparatus used in Britain for distilling wood vinegar, would, however, be much more convenient and productive. When the above boilers are unluted, there is found in the upper one a very light powder of charcoal, and in the under one which served as a receiver, there is an oily, brown, empyreumatic fluid, of a very strong smell, which is mixed with the tar, and which floats over a small quantity of crude vinegar. The former matter is the oil employed to impregnate the skins, by working it into the flesh side with the currier's tools. It is difficult to make this oil penetrate with uniformity; and the Russians do not always succeed in this process, for they turn out many skins in a spotted state. This oil is at present obtained in France by distilling the birch bark in copper stills, and condensing the products by means of a pipe plunged in cold water. About 60 per cent, of the weight of the bark is extracted.

The skins imbibe this oil most equally before they are fully dry. Care must be taken not to apply too much of it, for fear of its passing through and staining the grain side of the leather. Chevreul has investigated the chemical nature of this odoriferous substance, and finding it to be a peculiar compound, has called it *betuline*.

WELLAND CANAL.

We are imformed on the authority of a letter received from Mr. Killaly by the engineer in charge of the new works on the Welland Canal, that, in consequenc of advices received from England by the steamer Caledonia, at the government house, Kingston, of a full guaranty of abundant means from the home government, preparations are to be made for the immediate commencement of the enlarged stone locks on this work, six of which, near the mountain ridge, a guard lock at the junction, and a ship lock of 185 by 45 feet within the chambers, at Port Maitland, (Broad creek,) will shortly be placed under contract, to be finished with all reasonable despatch.

THE PHILOSOPHY OF BUSINESS.

Few things of any importance are ever accomplished without trial. If we make up our minds that nothing can be done in business, fold our hands and sit down under that belief, without making any exertion, we may rest assured that the result cannot be otherwise than in accordance with our gloomy anticipations. If on the contrary we have philosophy, resolution, energy and perseverance enough to adopt and pursue an opposite course, to put shoulder to the wheel and make trial, and if we find ourselves foiled in one effort or one enterprise, try another, we shall, in nine cases out of ten, reap a reward which can certainly never be gained, unless by accident, without the effort.

There is a philosophy in business which should be studied by all who are dependant upon it for support. The mechanic has but half learned his trade, who, if he be a shoemaker, tailor, or hatter, knows only how to make a good shoe, coat or hat. True, he is capable of rendering himself useful as a journeyman to his employer while dependant upon him for a head, but if he understand nothing of the principles of trade, he is incapable of turning to his own account, except through the agency of some second party, and of course but partially, the advantages of his superior mechanical knowledge.

Something else besides the mere knowledge of the forms of business is required to constitute the active and prosperous business man. It is even more essential to success that he should understand the principles of trade, the condition of markets, the state of the currency, and the nature and time of those changes to which they are subject, than that he should be skilful in his workshop or behind his counter. For without a knowledge of these things, which form the philosophy of traffic, he may labor all his life, and in the end be none the better for his toil.

In the present state of trade, this philosophy will be of incalculable value to its possessor. A great and thorough change in the mode of transacting business is in progress; the bubbles of misdirected commercial enterprise are bursting on every hand; the laws regulating the enforcement of contracts are undergoing serious modifications; the terms of credit are experiencing important alterations, and he who either cannot or will not shape his future course by these indications, must either withdraw from business altogether, or expect soon to find himself thrown upon the shoals of time, like a broken reed cast beyond the common tidemarks of its stream by some unusual swell. But to a man who guides himself by the current of events, and who keeps pace with the improvements of the day, these changes will prove less disastrous if they be not productive of good. He can foresee their result, and is not entirely unprepared for it. If he be a storekeeper, and discovers that the prices of his goods must come down, he obviates a great loss by submitting in time to a small one, and makes up his profit by other purchases and sales at the cheaper rates. He never relaxes his efforts to do business, nor does he permit his stock to depreciate on his hands, by holding it above its market value, but maintain an active traffic; regulates his purchases and sales by the market and the time; makes cash the medium, both of his sales and purchases; and although his profits may be light in individual transactions, they will give him in the aggregate, a competency, if they do not produce him a fortune.

The whole secret of the superior success of some merchants and traders over others lies in the accuracy of their knowledge and their activity in making that knowledge available. It is in vain for a man to go to sleep in any employment and hope to dream himself into a prosperous condition. He must make a business, not wait for it. He must guard against the broker, the sheriff, and the insolvent court, by commencing on the cash principle. He can maintain the most active of enterprise even in the dullest season, and attract purchasers by his advertisements, and by offering his goods at moderate profits. If he possesses a knowledge of the wants of the community, and pursues this course, he must be successful. We repeat, then, let every man study the philosophy of business and let him try to make a business, if he has not already done so, and he may safely calculate upon escaping ruin and poverty, if he should not attain prosperity and wealth.—*Philadelphia Ledger.*

HEIGHT OF MOUNTAINS.

The highest point of land in North America, east of the Rocky Mountain, is Mount Mitchell, a peak of the Black Mountain in Duncombe county, North Carolina. It is six thousand four hundred and seventy-six feet high, by actual measurement.

ALBANY, SATURDAY, AUG. 20, 1842.

AGAVE AMERICANA.

The stem of the plant at the patroon's garden has now reached the height of twenty feet, and contains twenty flower branches, the longest of which is nearly three feet, and has eighty-four flower buds at its extremity. It will undoubtedly soon begin to blossom at the lower branches. It first began to shoot up its flower stem on the 25th June, since which its growth has averaged nearly three feet a week. The house in which it is enclosed has been enlarged and carried up several feet above the top of the plant, and preparations made for giving it artificial heat as soon as the weather shall render it necessary.

The description of the various uses made of this plant, which we gave a couple of weeks since, was thought by some to be exaggerated for effect. We have now in our possession a piece of the stem of one of these plants, brought from Mexico, such as it was stated the natives used by way of razor strap! Its *grit* can be tested by those who are sceptical. The keeper has also a *bit o'twine* which he has made from a few fibres of the leaf, that will serve to show the quality of its *rope*.

We omitted sooner to notice that a gentleman in Philadelphia, Mr. Bernard Duke, has one of these plants now in the finest state of florescence. The flower stem alone is over twenty feet in height, covered with lateral branches, at the extremity of and along which are thick clusters of flowers. The plant is said to be most imposing in appearance, and will, no doubt, attract thousands of visiters. The last one of this kind which flowered in Philadelphia, was exhibited for the benefit of the Orphans' Asylum, and was seen by upwards of 35,000 persons. This was but 43 years old. Mr. Duke's plant first exhibited its flower stem on the 17th May, and attained its full stature on the 8th July. It expanded its first flower on the 29th July, and it is said the number will exceed 1500 when in full blossom.

MAMMOTH CAVE.

A couple of pedestrian adventurers from this city last week took an excursion to the caves in Schoharie county. The one discovered in June last was penetrated to the depth of five miles by measurement, extending under the range in Cobleskill, known as the Carker mountain; how much further it extends is unknown. It is called Howe's cave, from the gentleman who keeps it, and who is actively engaged in preparing it for the reception of visitors. It abounds in spacious caverns, of immense height, with running streams and cataracts, and ornamented with stalagmites and stalactites, in innumerable shapes, which have been forming for ages, and whose silent recesses were in all probability never before explored by man. A full description will, we presume, be ready for publication in a few days. The cave is about 35 miles from Albany, and bids fair to rival its Kentucky brother!

RICHMOND IN THE FIELD.

We learn that a gentleman of Williamstown, Mass., by the name of Richmond, is perfecting a machine calculated to serve as a substitute for wind, water and steam power! which he calls a horoscope, or endless lever. As he has not yet got it patented, he is wary of exposing it to the public gaze, lest he should be robbed of the reward of his invention. We are only permitted to say, that it is intended to be used in the marble quarries in his vicinity, in getting out slabs for market. The quizzical ones unable to fathom his secret, represent it as a perpetual motion; but how great will be their discomfiture to behold the mountain ranges melting down into shapely blocks under its operation! We are promised some account of it directly.

CANAL LOCKS.

It has surprised us that the imperfections in the gates of canal locks should have so long escaped the observing eyes of our ingenious mechanics. Perhaps it is to be attributed to the great confidence reposed in the superiority of every thing pertaining to that public work; or, the difficulties that interpose themselves in the way of the adoption of improvements, tend to dishearten the ingenious from attempting so unpromising a task. It occurs to us that we have somewhere seen an intimation that something of the kind had been attempted, recently; but as it has not come to light, it may have proved a failure, as is sometimes the case with the productions of very skillful men. The subject is here reverted to, on learning that a projector of acknowledged ability, who has devoted considerable attention to the subject, is about bringing out something of the kind, which he intends to propose for adoption. Will he give us a description of it, accompanied with drawings if they should be necessary to its elucidation.

TWO SHILLINGS A DAY—BEEF EXTRA.

At the first meeting of the court of assistants, held at Charlestown, Mass., in 1630, the price of mechanical labor was fixed at 2*s*. a day, for carpenters, joiners, bricklayers, sawyers, and thatchers, who were to take no more, under a penalty of 10*s*. to giver and taker. At this court, an unlucky wight named Edward Palmer, was sentenced for extortion, in charging 2*l*. 13*s*. 4*d*. for the wood work of Boston stocks, to sit in them one hour, and pay a fine of five pounds. That was the first decidedly *high protective duty* established in this country.

ANTIENT BOOK.

We have seen recently several notices of antient books, which were exhibited as curiosities; the more so as there are but few of them in this country. Probably the oldest and most rare are in the collection of Isaiah Thomas, which is believed to belong now to the antiquarian society at Worcester, Mass. But we have been shown a venerable relic of this sort, in good old German, which is of greater antiquity than any of those noticed by the papers. It was printed in the year 1492, about fifty years after the first successful attempts at printing, and is coeval, it will be perceived, with the discovery of America by Columbus. It is a Psalter of the Virgin Mary, and was given out by pope John XXIV. The first page, which contains the title of the book, commences thus: "Here begins the psalter of our dear mistress the holy virgin Marie," &c. The work is in good preservation, perfect and complete, containing 554 pages, 18mo, with several rude engravings, and is a specimen of what is looked upon by protestants as the horrid impiety and idolatry of the church before the reformation of Luther. The book is the property of Rutger's college library, and is in the hands of a venerable merchant of this city, who came from Europe near the close of the war of the revolution, and is quite familiar with the obsolete character in which it is printed.

A PIONEER'S INSCRIPTION.

Thomas Dickman, whose inscription will be found below, established a newspaper at Greenfield, Mass, in the year 1792, called the *Impartial Intelligencer*. We have a copy of it in our possession. The name of the paper was changed the next year to *Greenfield Gazette*, and, having undergone many transformations, is still in existence. At the period of its commencement the nearest post office was at Springfield, whence he obtained his exchange papers once a week, and his news from Boston and Philadelphia was generally three or four weeks old. Dickman sold out his establishment about the year 1806, we believe, and went to Northampton, where he resided at the time of his death. He lived to witness a great change in the condition of that part of the country, and important improvements and facilities in the art preservative of arts. He died while on a visit at Greenfield, and the following inscription is placed on his tomb:

THOMAS DICKMAN,
The First Printer,
The First Bookseller,
and
The First Postmaster
of Greenfield,
Born
At Boston, Dec. 18, 1768,
Died
At Greenfield, Dec. 9, 1841,
Aged 73 years.

GLASS WEAVING.

In the 36th No. of the Mechanic we gave a brief account of the process of weaving glass. It appears that this very ingenious discovery, by which glass is worked into a substance resembling the richest silk, is now being brought into very general operation, and in various ways, such as gentlemen's waistcoats and stocks, ladies' dresses, and many other articles of decorations, in the most splendid patterns. It is superior even to silk in flixibility and softnes, and the durability of it, a point, however, of no consideration with the *haut ton*, among whom at present it exclusively is, as a matter of course, vastly superior. In process of time, when the manufacture has arrived at a more perfect state, and all its little defects remedied, and all its wastings discovered, it will in all probability, come within the reach of most classes of society, but at present, its cost is its only drawback. The magnificence of its appearance is quite remarkable, and when used in any considerable quantity, as for window curtains, &c., it should be seen before a just appreciation of its richness and elegance can be entertained.

SICK HEADACHE.

Two teaspoonsfull of finely powdered charcoal, drank in a half tumbler of water, will in less than fifteen minutes, give relief to the sick headache, when caused, as in most cases it is, by a superabundance of acid on the stomach.

We find the above prescription in an exchange paper. The relief obtained by it is only temporary. Females are more generally subject to this disease than males. Instead of searching for *remedies*, they should seek for the *cause*, which is very frequently the use of tea and coffee. By banishing the cause they will not stand in need of the remedy.

The New York State Mechanic, published by Mr. Joel Munsell, at $1,50 per annum, is an invaluable paper—ably edited.—*Sunday Mercury.*

So is the Sunday Mercury, all of that, and great at grammar and fun, and *domestic* French too. When un souscripteur pays his bill, nous prendons le Mercury et sit down pour jouir la plaisanterie, et exiler les regrets!

GENERAL TRADE DEPOT.

An establishment under this name has been opened in Boston, which is designed to form a great bazaar house, for the sale of all new inventions, improvements in the useful arts, rare fancy goods, foreign and domestic manufactures, &c.; operating in a measure like the great mechanic fairs which are annually held, but offering the farther advantage of continuity, and serving as a place of sale, as well as exhibition, for all useful inventions. It will thus aid the inventor and manufacturer in a way that will prove of more benefit than medals and diplomas, and other honorary notices. Such an establishment, conducted with spirit and enterprise, would be of great public utility.

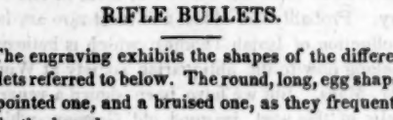
LEATHER MANUFACTURE.

Few of your readers, perhaps, are aware of the extent to which the manufacture of leather is carried in this city. Although we have no tanneries here, still there is an immense capital employed in dressing or currying. The principal establishment of this kind is that of Mr. Jacob Hochstrasser, in Hudson street, between Market and Quay streets. The leather is purchased in *the rough*, from the different tanneries of the state and vicinity, and taken into the factory, where it undergoes the process of *currying*, as it is termed, for different purposes, such as boots, shoes, saddle, harness and coach work, mill straps, engine hose, caps, &c., &c., in the following manner:—It is taken by the currier and soaked or wet down in clean water, and then the flesh, or loose parts of the hide, is shaved, or what is termed *skived*, off. It is then run through a machine called the splitting machine. The principle of the machine is this—a roller ranged horizontally in a frame is made to rotate over a solid cast iron plate, the vacancy between being regulated by the operator, according to the substance he wants his leather, the rotation of the roller causes the hide to be drawn slowly between it and the plate, but it cannot do so without encountering the blade of a very sharp knife, the whole length of the roller, say 44 inches, firmly set in the plate, in such a position as to split the hide in two thicknesses as it passes the knife, one half passing over the other under the blade. It is one of the consequences of the construction of this machine that one of the semi-thicknesses or sections must be equable and level in every part, while any inequalities which might have existed in the original hide will be thrown in the other section, which is leveled by hand with a broad, straight, two handled knife, with the edge turned and worked in such a manner as to shave off the superfluous thicknesses of the leather. The original splitting machine was invented by Maj. Parker, of Salem, Mass., about the year 1818, for which he received a patent from the U. S. government, and the curses of almost every operative currier in the country, as it was then supposed that it would, like most other labor saving machines, destroy their business; but, like most other inventions of the kind, it has caused almost double the labor on the same hide, for when it is split, both parts require about the same labor to finish them. The flesh or split side is finished for more common purposes, such as backs to boots, dashes to wagons and carriages, trunks, &c. Several improvements have been made on this machine since it was first invented; the last, and one now generally in use, was made by I. Richardson, of Roxbury, Mass., the principle is the same, however, as that of Maj. Parker's, only Richardson's is now made wholly of cast iron, weighing about 15 cwt., which makes it stand more firm when in operation than the original. Messrs. Brooks & M'Connell, leather dealers, of Boston, have purchased the exclusive right of manufacturing the above machines. After the leather is made perfectly level it is thrown into a tub of water, then taken out and laid on a table of marble or mahogany, and rubbed with a pummice or grit stone, whereby the bloom or voze, a whitish substance derived from the action of the bark and lime when tanning is removed, this is called scouring; it is then hung up until it is partly dry, then taken on the table again and rubbed until it is perfectly smooth, then a sufficient quantity of tallow and oil, mixed together, is spread over it to make it soft and impervious to water, it is then hung up to dry; this process is called stuffing. After the leather now becomes perfectly dry it is blacked and finished, on either side, according to the purpose it is intended for.

The art of currying is not only very hard and dirty work, but it requires more judgment and science than most branches of the mechanical profession. Tanning and currying is considered the most healthy employment a man can be engaged in. Mr. Hochstrasser usually employs from 10 to 15 hands; the present year, however, is no criterion to judge any of our manufacturing establishments by. Attached to his factory Mr. H. has an establishment for the manufacturing of Patent or Japan leather, which is an article used on the finest coach and harness work. In the manufacturing of this article, the currier prepares the leather in the ordinary way, without any oil, it then receives a coat of varnish made for the purpose, and is placed in a large kiler or oven, the temperature ranging from 120 to 160°, until it becomes sufficiently dry, then taken out and scraped with an instrument similar to that used by cabinet makers when facing a table, it then receives another coat of varnish and is replaced in the oven until dry, and the above is repeated until it receives a very brilliant gloss and is perfectly elastic.

In some future number I may make some remarks on the process of tanning. W. H. S.

Albany, August, 1842.



RIFLE BULLETS.

The engraving exhibits the shapes of the different bullets referred to below. The round, long, egg shaped or pointed one, and a bruised one, as they frequently lie in the barrel.

Many opinions prevail among shooters as to the kind of bullet best for rifle shooting; some maintaining that a long one, having more weight of metal with the same opposing surface, the end being only the size of the round one, or of the bore of the gun, gives it a preference, with small bores, for much distance; this may be so if the bullet can be put down so as to bring the end precisely in front, but, as the bullet must be tighter patched the heavier it is, there is much difficulty in doing it without jamming the bullet. I have known many guns to shoot excellently well with them. There is one kind of enlarged bullet that my experience has shown not so good, and that is the egg shaped, or with one peaked end and one large end, they are apt to jam sideways and give so much more bevel to the air upon one side than upon the other as to entirely change the position of the bullet, and I have often seen them taken from the target where they were thrown in sideways and even turned end for end. It must be obvious, then, that when the bullet changes sides it not only loses the advantages sought to be gained by the twist from the rifle, but when placed sideways to the opposing atmosphere must by its rotary motion, which does not leave it, be carried out of the line or range in which it was discharged. I have seen some good shooting made with the pointed bullet, but have seldom seen any thing like steady shooting with them, there being almost invariably wild shots with them; I think they are not to be depended upon.

The round bullet is uniformly the best, for all kinds of shooting, and is not liable to the objections made to all other kinds. The softest pure lead is the best material for rifle bullets when the barrel is properly cut, but by hardening them with *tea lead* or a small admixture of antimony it sometimes makes the ball hang to the grooves when their edges are rounded or worn, so as to prevent the ball from crossing them and tearing the patch. Much care should be taken in patching the bullet, for correct shooting. It being just the size of the bore, a patch of thin linen, that known as *brown Holland* being the evenest is the best article to use, being close and strong, the patch being placed over the end of the bullet upon the powder, the ball leaves it with freedom at the muzzle. For hunting or where the charge remains in the rifle for some time, the patch should be oiled, but in target shooting, where the piece is discharged as soon as loaded, the patch may be wet or moistened by the salive of the mouth, and cleans the barrel in passage down even better than oil, which is an object worth gaining. Buckskin, when very thin, even and oiled, is used as a patch by hunters, and answers a good purpose, as also the membrane covering the caul of animals. B. C. T.

SYNOPSIS OF NEWS, ETC.

Whether by design or accident is not known, but it is a fact, that a rum shop at Woodbury, Connecticut, was on Thursday morning blown to atoms, with its contents, by an explosion which shook the whole village. Nobody could be found to explain the occurrence.

Punishing state prison convicts by placing them in the stocks and *dropping cold water on their heads* is a new and refined species of cruelty, practised by the managers of the Auburn prison. How long this outrageous system has been in operation we are not able to say; but the Cayuga Tocsin, our authority, says that the official dignitaries of that Bastile are very careful not to offend keeper or guard since the above shameful practice has been adopted.

The mayor, aldermen and common council of New York, assisted by other dignitaries, broke ground for the New York and Albany rail road, in Duchess co., on Tuesday of last week. Thousands were in attendance, and it is said to have been a very spirited and pleasant affair.

The N. Y. Evening Post says: "We learn that Mr. Ithiel Town, of New Haven, offers for sale his great collection of books and paintings! He has been more than twenty years making it, withholding no pains or expense. It is doubtless the greatest and most splendid collection of the kind in the country."

1,000,000 francs, in specie, are on their way to this country, in the packet ship Albany, being the last instalment of the Neapolitan indemnity.

Hard times in Spain.—A commercial house in Norfolk has received a letter from their correspondent at Cadiz, dated 7th July, which advises the shipment of no more staves. Norfolk pipe staves, he says, cannot be forced at $56 per M. They have staves enough for four years consumption. The drought is such that the fields present a most melancholy sight; not a stud of grass is to be seen, and crops, vintage, and all, are lost this year, beyond redress, and the city of Cadiz is in great consternation for water.

Platte city, in Missouri, was, two years and a half since, a *forest!* It has now a hundred substantial dwellings, and fine public buildings.

Toronto has been visited lately by several of the vessels with Ericson propellers, which are said admirably to answer the expectations of their proprietors. A regular line from Oswego to Chicago, touching at Toronto and Goderich, is now in full operation.

Some wag says that a person who is choked with a potatoe, may find relief by swallowing a pumpkin. That is like paying a debt with money hired of a broker.

There was a sharp *frost* in some parts of Chautauque county on the morning of the 1st inst.

Nauvoo, the great Mormon city, contains 12,000 inhabitants.

There are 1300 persons in the Blockley alms house, Philadelphia, in good health. A sad commentary on the times.

The father of Clara Fisher, the actress, died in New York city, a few days ago, at an advanced age. He is represented as having been a very intelligent and a most worthy man.

Buildings of cast iron are daily increasing at a prodigious rate in England, and it appears that houses are about to be constructed of this material. A three story house containing ten or twelve rooms, will not cost more than £1100, regard being had to the manner in which it may be ornamented. Houses of this description may be taken to pieces, and transported from one place to another, at an expense of not more than £25. It is said that a large number of cast iron houses are about to be manufactured in Belgium and England for the citizens of Hamburgh, whose habitations have been burnt.

A cake weighing one hundred and six pounds and measuring eight feet in circumference was presented to the Lancaster fair and exhibition, by a lady of that place.

Seventy eight stalks of rye, with heads well filled, estimated to contain 5000 grains of rye, were raised from a single kernel, this season, on the farm of John H. Hidley, in Greenbush, Rensselaer county. Beat that, any body.—*Budget.*

A letter dated Bombay, May 20, states that the cholera was raging badly, 200 to 300 natives dying daily.

It is said that a great meeting of kings and potentates will take place on the Rhine, in the autumn, and that the emperor of Russia will be present.

The wife of James Fitzpatrick, of West Troy, N. Y., has given birth to three fine children, two girls and a boy. The mother and children are all well, and bid fair to live.

James O'Connor, in a memorial to congress on the subject of steam boilers, states that a steam boiler cannot be heated up to 308 degrees without producing inevitable explosion.

Hugh Paton, a laborer, while engaged in repairing the four story building corner of Centre and Duane streets, N. Y., fell from the topmost scaffolding, a distance of 57 feet, struck on a scantling two or three feet from the ground, which he broke, and was taken up insensible. None of his bones appear to have been broken, though his injuries, which are internal, are said to be very serious. The wonder is he was not killed on the spot.

Call & Settle, are the names of a firm of tailors in one of the inland towns of Pennsylvania. We doubt if they get much custom.

The Montreal Herald says that a clock is to be placed in one of the towers of the French cathedral, with a plate glass dial, to be lighted inside with gas, so that the time may be known by it during the night as well as during the day.

The escaped convicts from Auburn have not yet been captured. They have most likely made a clean run of it.

Of rope walks in the United States, it seems that there are 388. The capital invested in these amount to $2,465,577, producing a value of $4,078,306.

It appears that one-third of these rope walks (111) are in Kentucky; and that the capital invested in them is $1,023,130, or a little less than half the entire capital so employed. The value produced is $1,292,276, or more than a fourth of the entire production of this branch of industry in the United States.

It is announced that at the late burning of the Rotunda building, in New York city, the manuscripts, drawings and specimens, brought home by Mr. Catherwood, from his late tour, were *not* destroyed.

The number of bankrupts thus far in the Northern District of New York, is 2,435.

The wreck of the ill-fated steamboat Lexington, which was burnt two years ago on her passage up the Sound to Boston, has been found in 120 feet water. She had on board an iron chest containing a large amount of money in specie and bank notes. Arrangements are making to raise her immediately.

Laborers are plenty in the vicinity of this city at sixty-eight cents a day, out of this they have to pay forty-four cents a day for board, leaving twenty-four cents for the day's work.—*Express.*

It is estimated that twenty-eight million pounds of genuine coffee are consumed annually in Great Britain and Ireland, and that not less than eighteen millions of pounds more of vegetable matter are fraudulently sold under the name of coffee.

We learn from the Lowell Courier that the Lawrence Mills Company in that city, contemplate reducing their speed about one-fifth next week, which will throw a number of females out of employment.

The Manhattan (Ohio) Telegraph states that a man who lives on the West Sister, lately speared a trout four feet two inches in length, weighing 26 lbs. A few days previous he caught one weighing 19 lbs.

A law in Scotland, passed in 1225, gave the girls the right to choose whom they pleased for husbands.

During his residence in Spain, it is stated that Washington Irving will avail himself of the facilities offered to him by his position, to prepare his long contemplated history of Mexico.

An acquaintance of ours lately caught a bat in his coat pocket. It is supposed that the creature went in for the purpose of catching bugs, or that he mistook the man for a hollow stump. ——The times are so hard that they are said to have had a sympathetic effect on peaches, so that it is impossible to get any soft ones in market.——It is said that slavery in Virginia is preferable to freedom in Pennsylvania.—— The Croton celebration is to take place on the 10th of September.—*Sunday Mercury.*

CIRCULAR.

To the Mechanics of the State of New-York:

The undersigned, "Executive Committee of the N. Y. State Association of Mechanics," address themselves at this time, for the purpose of calling attention to those interests believed to be connected with their callings as a body, such as is emphatically the *mechanics' interest.*

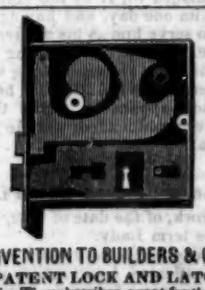
It will be remembered that nearly a year since the mechanics of this state met in convention at the Capitol, in Albany, for the purpose of discussing the effects of the state prison system of mechanical labor upon the interests of the mechanics generally, and the mode of obtaining relief. So respectable in numbers and talents was that convention, that it had a decided influence upon the management of that question before the public and before the legislature last winter, by eliciting a discussion of its merits before both, and the results are an acknowledgement of our claims, and in the law passed upon that subject, an approximation to relief was given. It was not considered by the mechanics to be such relief as should have been given to them, but as there was coupled with it a commission to examine another project for the employment of the convicts, it has been acquiesced in, although it was understood from the manner and nature of the appointment, that it was a mere pass-over to get rid of the subject, and that there was no intention of considering it seriously.

At the same convention above spoken of, the incipient steps were taken for forming a "State Association of Mechanics," which was consummated in October last, and a paper established under its control, devoted to the interests of the mechanics and manufacturers, which has now reached its 35th No. It is a conceded point that every class must take care of its own interests if it would have them subserved, and neither facts nor arguments are now required to prove that by associations come the most correct conclusions, and the most efficient action. Nor will it be denied that the mechanics, as a body, have interests deep and abiding to be taken care of. The question now agitating the country from ends to centre is one of more vital interest to the mechanics than to any other portion of community, involving as it does the terms of their competition with the crushed, degraded, down trodden laborers of monarchial Europe, and with many trades it is the question of their existence in this country, and with all their comparative standing with the rest of community.

With such reasons therefore, and others obvious to every one, we appeal to the mechanics to carry out the organization started last year, by forming county associations, and appointing delegates to the state society, *meeting on the last Wednesday of August next.* Also to name members of the "general committee," equal in number to the members of assembly from each county. And where there may not be county associations, we would ask town or village societies of mechanics to select and send the names of active intelligent mechanics to compose such committee; the duties of which are, 'to be a channel of communication throughout the state'—*a general corresponding committee.* To complete so important an interest, the committee feel that they ought not and that they will not appeal in vain to their fellow mechanics.

And the question is also involved, whether the mechanics of the State of New York will sustain a paper devoted to their interests, or whether it shall be said that of *a hundred and seventy-five thousand mechanics* there is neither spirit nor enterprise enough to support a mechanics' paper. The one now established has a good beginning, which it has cost much time and labor to establish, and which, owing to the peculiar depression of the times and the impositions of agents, has not as yet paid its way. It was expected that mechanics would come forward voluntarily to its support, and advance the small amount of its subscription price; in which case efficient talent might be enlisted in its management. The committee wish to awaken the attention of prominent mechanics in each county to interest themselves in behalf of the paper, as an organ of the mechanic interest in the state. It may be done without trenching upon much of their time, and will amply remunerate all their exertions. It is particularly desired that mechanics should furnish to the paper information of general interest as well as that of particular trades. The committee earnestly ask your attention and immediate action upon the above.

WILLIAM H. PECK, Kings co.
EZRA S. HOWARD, Rensselaer co.
JAMES WALLACE, " "
JAMES HEGEMAN, " "
JOHN WAYDELL, New York city.
WARREN HECOX, Onondaga co.
O. G. STEELE, Erie co.
SAMUEL BAYLISS, Monroe co.
BENJ. C. TRUE, Albany co.
ANDREW JONES, " "
WILLIAM HAWE, " "
ABRAM KOONZ, " "
ALFRED PIERCE, " "
WM. WHITNEY, " "



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WILSON'S PATENT LOCK AND LATCH, WITHOUT SPRINGS.—The subscriber, agent for the sale of the above Locks, having permanently located in this city, is now prepared to supply all orders with despatch. The above Lock is a new and important invention, possessing many advantages over every other kind of Lock which has ever been in use. It is made without springs of any kind and is not liable to get out of order. The principle being that of the united lever it acts with great regularity and little friction.

We are also prepared to furnish an ALARM LOCK, constructed on the same principle, with the addition of a guard or alarm bolt, which, when set, closes up the key hole of the lock, and may be at pleasure attached to a bell or any other means of alarm, either within or without the building, and will immediately set the alarm in motion when any attempt is made to force the lock or pick it open, the door still remaining securely fastened.

Orders addressed to the subscriber, at Washington Hall, South Pearl street, will receive immediate attention.

S. F. BENNETT.

Albany, August 17, 1842.

MISCELLANY.

NIAGARA.

Lord Morpeth, a new Guide Book says, has left at Niagara Falls the following:—

There's nothing great or bright, thou glorious Fall!
Thou may'st not to the fancy's sense recall—
The thunder-riven cloud, the lightning's leap,
The stirring of the chambers of the deep,
Earth's emerald green, and many-tinted dyes,
The fleecy whiteness of the upper skies,
The tread of armies, thick'ning as they come,
The boom of cannon, and the beat of drum,
The brow of beauty, and the form of grace,
The passion and the prowess of our race,
The song of Homer in its loftiest hour,
The unresisted sweep of Roman power,
Britannia's trident on the azure sea,
America's young shout of liberty!

Oh! may the wars that madden in thy deeps,
There spend their rage, nor climb 'th encircling steeps;
And, till the conflict of thy surges cease,
The Nations on thy banks repose in peace!

Nov. 3, 1841, MORPETH.

It is said there is but *one* step from the sublime to the ridiculous. Is not that step taken between the pieces of poetry above and below, upon the same subject?

PARODY.

There's nothing (saving six,) great blustering Fall
Thou may'st not to the fancy's sense recall:
A drove of bleating, woolly-coated sheep,
Each other chasing in a headlong leap;
The flaunting flounces of a dancing rout;
A cask of whiskey with the head knocked out;
A stormy fury, jealous of her spouse,
Smashing the total crockery of the house;
The frothy bombast of some learned dunce!
Ten thousand bawling children whipt at once;
A city's soap-suds on a washing day,
Or rowdy hubbubs of a drunken fray;
The present times, *so meatless*—'out of joint,'
Or breakfast cascades, off rough Judith's point.

Oh, may the spray that flutters o'er thy water,
Making a fuss much greater than it oughter,
There spend its rage, nor shower upon the hills,
To wet those natives who've no armbrills!

TIMOTHY.

PECULIARTIES OF GENIUS.

Tycho Brahe, diverted himself with polishing glasses for spectacles; Balzac's favorite amusement was that of making crayons; Rehalt loved to wander from shop to shop to see various mechanics at their labor; Montaigne found a playmate in his cat; Cardinal Richelieu delighted at playing leap-frog with his servant; Pope wasted his time in trying to paint; Politian was never so happy as when singing to his lute; the ingenious physician, Dr. Harrington only lived when vociferating catches and glees; Dr. Arne's greatest enjoyment was writing poetry, Rosseau relieved his literary studies with the alternative of composing melodies; and Philidor was even a greater chess player than a musician.—*The Concert Room.*

EVERY WOMAN IS AT HEART A RAKE.

This line, or one answering to it, in the French language, was written some centuries before the time of Pope. Its author, a celebrated wit and poet, was well nigh punished for it by the ladies of the court, who caught him one day, and having prepared rods, were about to serve him as his master Ovid had been served before. The satirist, finding no means of escape had recourse to his wit to bring himself off. "If I must be beaten," says he, "let her to whom my couplet is most applicable, strike the first blow." The ladies were confounded, and the poet escaped.—*N. Y. Aurora.*

ORIGIN OF THE WORD LADY.

In an old work, of the date of 1762, is the following account of the term Lady:

"As I have studied more what appertains to the ladies than gentlemen, I will satisfy you how it came to pass that women of fortune were called ladies, even before their husbands had any title, to convey that mark of distinction to them. You must know, that heretofore it was the fashion for a lady of affluence, once a week, or oftener, to distribute a certain quantity of bread to her poor neighbors, with her own hands, and she was called by them the Leff day, i. e. the bread giver. These two words were in time corrupted, and the meaning is now as little known as the practice which gave rise to it."

A MAN OF GOOD DEEDS.

A late English paper says that Mr. William Falkous, late of Gateshead, draper, who died in July last, by his will, proved at Durham, on the 21st ult., bequeathes £7410 in legacies, varying from £10 to £300, to "industrious and upright professional men, tradesmen and others," (in all 101,) some of whom, he remarks, he had observed contending with difficulties, and yet preserving their integrity. To one legatee he bequathes £50 as a token of his esteem for him in closing his shop on the Sabbath, which shop had been kept open by the previous occupier.

A GERMAN FABLE.

The giant Eagle soar'd on high,
Into the regions of the sky;
Dash'd through the clouds in glorious state,
And on the highest mountain sate,
And said:—

"Here then I stand,
Head of my kingdom—who shall fly
To this sublime, untroden land?
Who can approach me?"

'I,'
Said a small voice—he look'd around,
And saw an earth-worm on the ground,
"*We* rivals?—So!—
How cam'st *thou* here!" the Eagle call'd;
'I! from below!'
And how then *here?*" 'I crawl'd.'

* * * * * * * *

Ye Ministers and Generals,
Ye Chancellors and Cardinals,
Lawyers and Laureates all,
That occupy those seats so high,
Come now and tell us, did you *fly*,
Or did you *crawl?*
'Tis really odd how oft one traces
Your *crawlers* to the loftiest places.

SAGO PUDDING.

The following is an excellent recipe for a family pudding. Take a common sized teacupful of sago, and wash it thorougly; put it in a pint of milk, place it where it will keep quite warm, without burning, and let it swell as much as three hours. When ready for baking, beat up three eggs and add them; sweeten it well, and spice it with nutmeg or cloves, or rose-water, according to your fancy. Stir in a teaspoonful of fine salt. If you wish to make it particularly rich, stir in half a teacupful of melted butter. This will fill a good sized pudding dish, and takes about three quarters of an hour to bake.

TIME.

Man is ever quarrelling with *Time*. *Time* flies too swiftly, or creeps too slowly. His distempered vision conjures up a dwarf or a giant; hence *Time* is too short, or *Time* is too long! Now *Time* hangs heavy on his hands; yet for most things he cannot find *Time*! Though *Time* serving, he makes a lackey of *Time;* asking *Time* to pay his debts, *Time* to eat his dinner, *Time* for all things.

TOBACCO.

Tobacco is the servent of Alcohol and Idleness. He is a sallow, ill-favored, lazy, good-for-nothing fellow. Some pretend he is a dentist and cures the toothache. Beautiful work he makes of it! The mouth where he has operated—what a place it is for pearls! The breath, how balmy! But for a dentist, he is a great while at it. He is a sort of a travelling dentist. You can hardly step into a tavern without stumbling over one of the beautiful basins which he keeps for his patients to spit in. And when he does not furnish these basins, his patients, the plague of Egypt take them, spit on the floor. If people have occasion for a dentist, why not resort to his office and receive his attentions in private, instead of lugging the doctor about with them, and spitting his fragrant tooth-wash in all sorts of places?

EPIGRAMS.

Quoth Bet, "Since I have thought at all,
I've form'd this steadfast rule,
Let what'er other ill befall,
Never to wed a fool."

Says Jack, "Then nothing can, I fear,
From celibacy save you;
For, take my word for it, my dear,
None but a fool would have you."

Rusticus wrote a letter to his love,
And fill'd it full of warm and keen desire;
He hop'd to raise a *flame*—and so he did,
The lady put his nonsense in the fire.

BOOK BINDING.—HARVEY H. CORNING, sign of the golden ledger, 92 State street, Albany, carries on the above business in all its various branches, viz: PLAIN, EXTRA and SUPER EXTRA—has a first rate RULING MACHINE and other necessary implements for manufacturing BLANK BOOKS of every description, on the most reasonable terms, of the best materials and workmanship.

N. B. An assortment kept on hand. 27.

RAYMOND'S IMPROVED FRACTURE APPARATUS, for the lower limbs, is an instrument combining all the advantages mentioned by W. Parker, M. D., of New York, while speaking of Dr. Bowen's Apparatus. Mr. R. dispensed with the crutch, (as the arm is not a fixed point from which to make extension,) and introduces the much more improved and mechanical way of making counter extension by the belt around the Pelvis. He has also a very simple additional method of his own in the management of the foot, and likewise a farther improvement in flexion of the limb, thereby rendering the instrument at once simple and easy to be adjusted. It may be used on a child 2 years of age, or for an adult person. We are satisfied that this instrument, in its present improved state, is the most perfect of any thing of the kind now in use in this country.

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R. HURLBUT, Physician and Surgeon, Utica.
SIMON Z. HAVEN, } Physicians & Surgeons,
JOSIAH RATHBONE, } Utica.
THEODORE POMEROY, }

From the Boston Medical & Surgical Journal of March 30th, 1842.

RAYMOND'S FRACTURE APPARATUS.—This instrument seems destined to win its way into general favor with surgeons as well as patients. If the naval surgeons would take out half a dozen in each ship, they would find them, we think, superior to any contrivance now extant for counter extension. Since receiving the opinion of a surgeon who has a fractured thigh under his care, secured by this excellent device, we feel authorised to speak of it more warmly than on any former occasion.

☞ All orders post paid, addressed to N. S. RAYMOND, No. 53 Columbia, corner of State street, Utica, will receive attention.

PATENT AGENCY.

THE UNDERSIGNED, for the last three years Examiner in the Patent Office of the United States, has established an agency at Washington City, to accommodate persons desirous of obtaining patents for improvements in the useful arts.

As it is important to Patentees that their business should be attended to with promptness and fidelity—their interests frequently suffering from the delays growing out of the return of their papers for amendment, when drawn up by themselves or persons not acquainted with the business—it is evident that a great advantage will be derived from the employment of a proper person in the first instance.

An experience of three years in the Patent Office, during which period hundreds of inventions have been examined by the undersigned, has fully qualified him, he thinks, to serve as a Patent Agent, with the greatest possible advantage to those who may favor him with their patronage, as from his acquaintance with the forms of the office and inventions already patented, he will be enabled, in drawing up the papers of applicants, to avoid whatever might delay or prevent the issuing of a patent. His experience will enable him also to furnish information to persons respecting the novelty of their inventions, before they are submitted to the office, so that they may avoid the expense attending unfavorable applications for patents.

In every thing relating to his profession, embracing the application of chimistry to the arts, improvements in surgical instruments, &c., the undersigned will be able to render important assistance to inventors.

Having established agencies at London and Manchester, in England, he will be able to secure patents in that country, and prepare all the necessary papers with the greatest promptness and dispatch.

Inventors need in no case subject themselves to the expense of visiting Washington, as by forwarding to the Patent Office a model, where the invention is a machine—or a specimen, where it is a composition of matter—and sending a short description explanatory of its nature, &c. to the undersigned, all the necessary papers and drawings can be prepared and sent to the applicants for their signatures.

Models and papers can be forwarded to the Patent Office free of expense, by being delivered to the Collectors of the different ports. In the city of New York, the undersigned has an agent—M. Levy, 65 Maiden Lane—who will immediately forward by railroad all models and papers placed in his care for this purpose.

An Architect and Engineer, employed for the last four years as a Draftsman in the Patent Office, will attend to the execution of all the necessary drawings required by the undersigned in his business. Those who may perfer to draw up their own specifications, can have their drawings executed by him with the greatest accuracy and on the most reasonable terms.

Communications *postpaid*, addressed to the undersigned, will be immediately attended to In all cases where information is required, a fee of five dollars must be enclosed.

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